

60 Watts

- Energy Efficiency Level VI
- European CoC Tier 2
- <0.15 W Standby Power
- Single Outputs 12 to 48 V
- 0 °C to 60 °C Operation
- Universal Input
- 3 Year Warranty



Dimensions:

AEK60:

4.65 x 1.85 x 1.19" (118.0 x 47.0 x 30.1 mm)

Models & Ratings

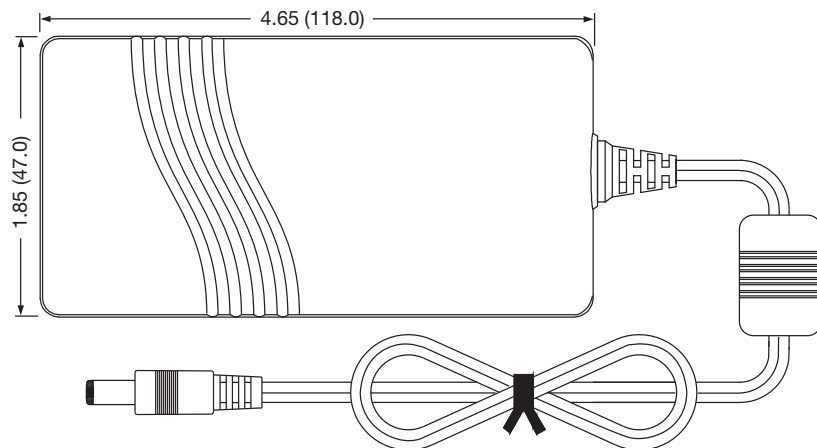
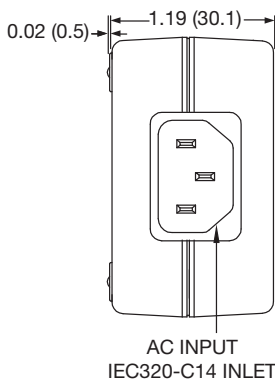
Output Power	Output Voltage	Output Current	Total Regulation	Ripple & Noise ⁽²⁾	Efficiency ⁽¹⁾	Model Number
60 W	12.0 V	5.00 A	±5%	100 mV	89.0%	AEK60US12
	15.0 V	4.00 A		100 mV	89.0%	AEK60US15
	18.0 V	3.33 A		100 mV	89.0%	AEK60US18
	24.0 V	2.50 A		100 mV	89.0%	AEK60US24
	48.0 V	1.25 A		100 mV	89.0%	AEK60US48

Notes

1. Typical average of efficiencies measured at 25%, 50%, 75% and 100% load and 230 VAC input.

2. Pk Pk value measured with 20 MHz bandwidth and 0.47 µF ceramic capacitor.

Mechanical Details



Notes

1. All dimensions shown in inches (mm).

2. Weight: 0.53 lbs (240.0 g) approx.

3. Tolerance is ±0.02 (±0.5) maximum, except output cable length which is ±2" (±50 mm)

4. Output connector is 5.5 mm dia. outer barrel, inner dia. is 2.5 mm with a center + and outer shell - polarity.

5. Cable length: 12 & 15 V: 48" (1220 mm) 16 AWG
Others: 48" (1220 mm) 18 AWG

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage	90		264	VAC	
Input Frequency	47		63	Hz	
Input Current		1.4/0.8		A	Measured at 100 VAC/240 VAC
Inrush Current			110	A	230 VAC, cold start at 25 °C
Leakage Current			0.75	mA	240 VAC, 60 Hz
No Load Input Power			150	mW	
Input Protection	T2.0A/250 VAC internal fuse in line				

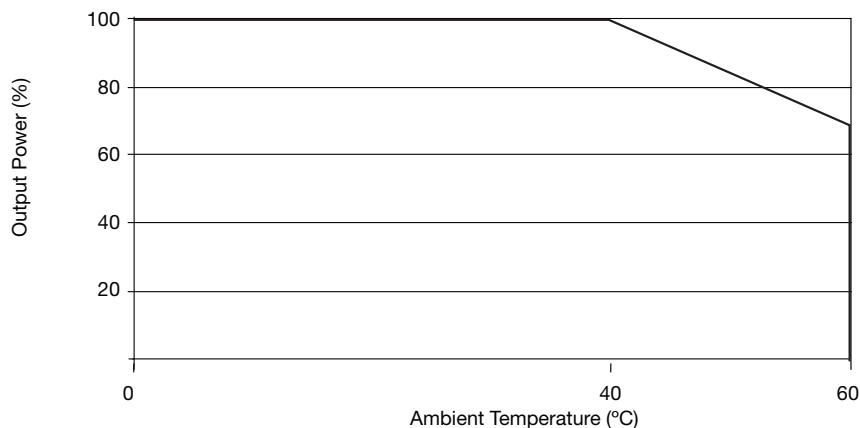
Output

Characteristic	Min.	Typ.	Max.	Units	Notes & Conditions
Output Voltage	12		48	VDC	See Models and Ratings table
Initial Set Accuracy			±2	%	At 60% load
Minimum Load					No minimum load required
Hold Up Time	10			ms	Full load and 115 VAC
Line Regulation			±1	%	From minimum to maximum input voltage at full load
Regulation			±4	%	Load regulation measured from 20% to 100% load
Transient Response			5	%	Maximum deviation, recovering to less than 1% within 500 µs for 25% step load
Ripple and Noise				mV pk-pk	See Models and Ratings table
Overshoot		5		%	At turn on / turn off
Overload Protection	110		150	%	
Short Circuit Protection	Trip and restart (hiccup), auto resetting				
Temperature Coefficient		0.04		%/°C	

Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating Temperature	0		+60	°C	Derate from 100% load at 40 °C to 67% load at 60 °C
Cooling	Natural convection				
Operating Humidity	5		90	%RH	Non-condensing
Storage Temperature	-40		+85	°C	
Operating Altitude			2000	m	
Shock	IEC68-2-27, 30 g, 11 ms half sine, 3 times in each of 6 axes				
Vibration	IEC68-2-6, 10-500 Hz, 5 g 10 mins/sweep, 60 mins for each of 3 axes				

Derating Curve

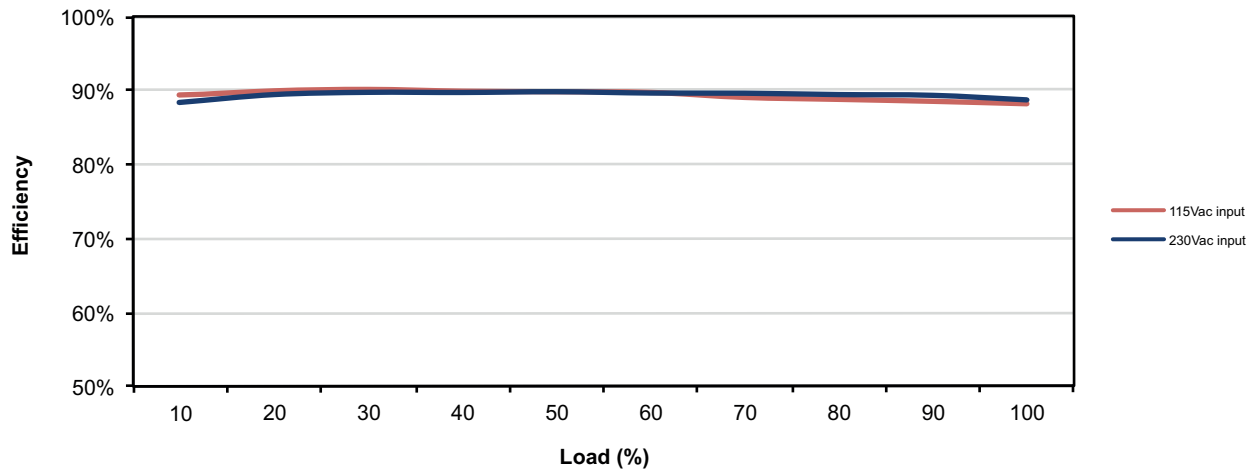


General

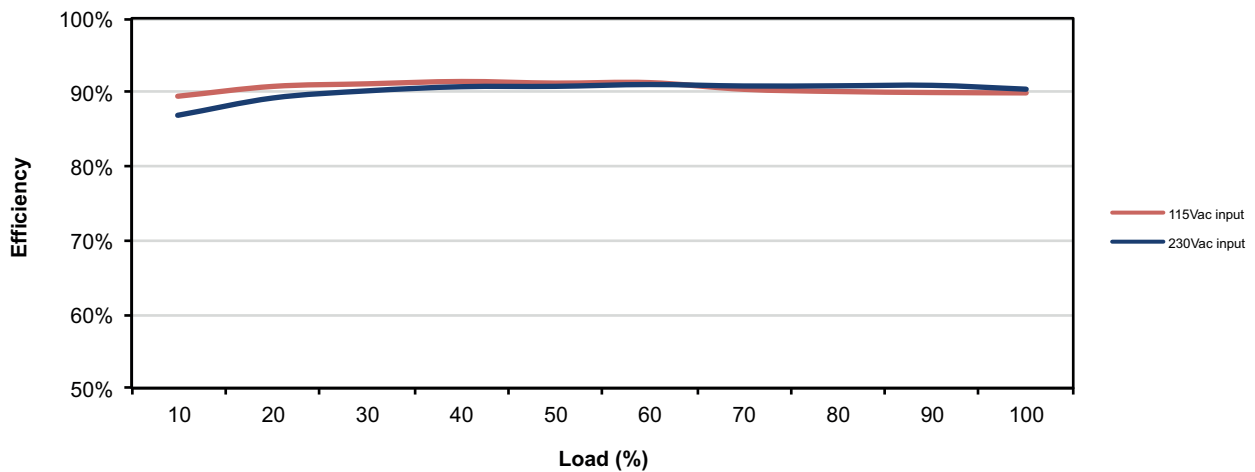
Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency		89		%	See Models and Ratings table and curves.
Isolation: Input to Ground	1500			VAC	
Isolation: Input to Output	3000			VAC	
Isolation: Output to Ground	500			VDC	
Switching Frequency		65		kHz	
Power Density		5.8		W/in ³	
Mean Time Between Failure	100			kHrs	MIL-HDBK-217F at 25 °C GB
Weight		0.53 (240.0)		lb (g)	

Efficiency Curves

AEK60US12



AEK60US24



EMC: Emissions

Phenomenon	Standard	Test Level	Notes & Conditions
Emissions	EN55022	Level B	Conducted & Radiated
Harmonic Current	EN61000-3-2	Class A	
Voltage Flicker	EN61000-3-3		

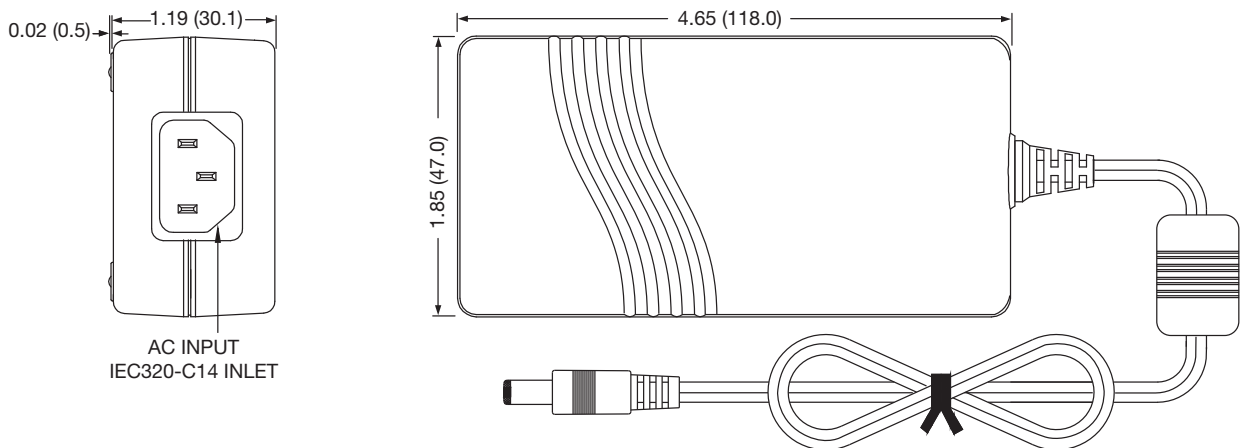
EMC: Immunity

Phenomenon	Standard	Test Level	Criteria	Notes & Conditions
ESD	EN61000-4-2	±8 kV Air, ±6 kV contact	A	
Radiated	EN61000-4-3	3 V/m	A	
EFT/Burst	EN61000-4-4	2	A	
Surge	EN61000-4-5	Installation Class 3	A	
Conducted	EN61000-4-6	3 V	A	
Magnetic Fields	EN61000-4-8	3 A/m	A	
Dips and Interruptions	EN61000-4-11	Dip: 30% 10 ms	A	High Line/Low Line
		Dip: 60% 100 ms	A/B	
		Int: 100% 5000 ms	B	

Safety Approvals

Safety Agency	Safety Standard	Notes & Conditions
UL	UL60950-1	
TUV	EN60950-1	
CB	IEC60950-1	

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